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(54) Title: IMPROVED POLYVINYL ALCOHOL FILM AND METHOD OF PRODUCING THE SAME

(57) Abstract: This invention relates to improved water-soluble polymeric materials, and particularly to water-soluble films designed with a non-migratory plasticizer system for increasing the longterm use of the film. Specifically, the invention comprises a film comprising a blend of polyvinyl alcohol, a low molecular weight plasticizer, a high molecular weight plasticizer and a water-soluble or water-dispersible salt or mineral nucleating agent including any material which is water soluble, or substantially so, and capable of being incorporated into the film structure, preferable materials are salts or minerals. More particularly, the present invention relates to a system and method including providing a dissolvable film for packaging individually sealed dosages of materials. This present invention also relates to a method of producing a water-soluble film that can effectively act as the primary packaging for liquids, gels or pastes products containing 1-85% water by weight whilst keeping package integrity till the intended use of said product. These films can be produced by lamination of cold water-insoluble films to existing cold water soluble films, co-extrusion, solution casting, printing of a PE/PVA copolymer or a plasticized 99% Hydrolyzed PVA on an existing cold water-soluble film, or extrusion coating of PE/PVA copolymer on an existing cold water-soluble film.